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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/710,259      | 06/29/2004  | David Nagi           | LC 0155 PUS         | 4258             |

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| EXAMINER |
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HUSON, MONICA ANNE

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| ART UNIT | PAPER NUMBER |
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1791

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04/08/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                    |  |
|------------------------------|--------------------------------------|------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/710,259 | <b>Applicant(s)</b><br>NAGI ET AL. |  |
|                              | <b>Examiner</b><br>Monica A. Huson   | <b>Art Unit</b><br>1791            |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 6-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 6-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

This office action is in response to the Amendment that was filed 26 December 2007.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, and 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al. (U.S. Patent 5,500,166), in view of Kreuttner (U.S. Patent 4,447,372), further in view of Hiroi et al. (U.S. Patent 7,303,719). Regarding Claim 1, Sasaki et al., hereafter "Sasaki," show that it is known to carry out a method for plastic injection molding (Abstract) comprising providing a mold cavity to form a plastic molded part with a predetermined surface area and injecting a quantity of plastic material into said mold cavity (Column 10, lines 6-7), wherein the quantity of material injected into the mold cavity is less than the full amount to fill the mold cavity (Column 17, lines 25-35; It is interpreted that since the mold cavity which the resin is injected into is larger than the size of the final part, the amount of plastic injected into the mold cavity will be less than the initial cavity volume.); moving a piston member in the cavity in order to reduce the cross section of the mold cavity (Column 11, lines 41-54), wherein said step of reducing the cross section of the mold cavity operates to completely fill the mold cavity with plastic material (Column 11, lines 50-54); allowing the plastic material to cool in the mold cavity (Column 12, lines 18-19); and ejecting the molded part from the mold cavity (Column 12, lines 27-29; It is noted that "formation of the knit lines is minimized is only an intended consequence of the claimed process. Since all the process steps have been met, it is interpreted that this minimization of knit lines will implicitly be met as well.). Sasaki does not specifically show reducing the cross section of the mold cavity at least 50% and a method wherein the molded part has thin walled sections at least 50% of its surface area. However, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation (See MPEP 2145.05 (II)(A)). Therefore, It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to reduce the cross section by any applicable amount, such as

that claimed, during Sasaki's molding method in order to produce an article which meets exclusive customer specifications. Sasaki does not show reducing the cross section of the mold cavity using a piston member in the cavity. Kreuttner shows that it is known to carry out a method wherein the cross section of the mold cavity is reduced by movement of a piston member in the mold cavity (Column 3, lines 3-30, 54-59). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Kreuttner's pistons in the mold cavity during Sasaki's molding process in order to produce an article with a specific desired surface. Sasaki does not show selected compression of his product. Hiroi et al., hereafter "Hiroi," show that it is known to carry out an injection compression process wherein only selected areas are compressed, and the cross section of the article is not reduced in at least one area where structural support is needed for subsequent mounting of an accessory member (Figure 2, boss area 2 is not compressed). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Hiroi's selective compression step during Sasaki's molding process in order to maintain the stability and strength of a molded article in structural support areas while allowing compression and the advantages therewith of other areas.

Regarding Claim 3, Sasaki shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not specifically show reducing the cross section of the mold cavity at least 75%. However, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation (See MPEP 2145.05 (II)(A)). Therefore, It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to reduce the cross section by any applicable amount, such as that claimed, during Sasaki's molding method in order to produce an article which meets exclusive customer specifications.

Regarding Claim 6, Sasaki shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show two piston members in the mold cavity. Kreuttner shows that it is known to carry out a method wherein said cross section of the mold cavity is reduced by movement of at least two piston members in the mold cavity (Figure 4, elements 1, 2, 8). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Kreuttner's pistons in the mold cavity during Sasaki's molding process in order to produce an article with a specific desired surface.

Regarding Claim 7, Sasaki shows the process as claimed as discussed in the rejection of Claim 6 above, but he does not show two piston members in the mold cavity. Kreuttner shows that it is known to carry out a method wherein the at least two piston members are positioned in the same side of the mold cavity (Figure 4, elements 2, 8). It would have been prima facie

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obvious to one of ordinary skill in the art at the time the invention was made to use Kreuttner's pistons in the mold cavity during Sasaki's molding process in order to produce an article with a specific desired surface.

Regarding Claim 8, Sasaki shows the process as claimed as discussed in the rejection of Claim 6 above, but he does not show two piston members in the mold cavity. Kreuttner shows that it is known to carry out a method wherein the at least two piston members are positioned opposed to one another in said mold cavity (Figure 4, elements 1, 2). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Kreuttner's pistons in the mold cavity during Sasaki's molding process in order to produce an article with a specific desired surface.

Regarding Claim 9, Sasaki shows the process as claimed as discussed in the rejection of Claim 1 above, including a method further comprising the step of ejecting the molded part comprises opening the mold and removing the molded part (Column 12, lines 19-40), meeting applicant's claim.

Regarding Claims 10 and 11, Sasaki shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the cross section of the mold cavity is reduced to provide a part with a certain wall thickness (Column 41-67). Although Sasaki does not particularly discuss the claimed wall thickness value, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation (See MPEP 2145.05 (II)(A)). Therefore, It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to reduce the cross section to a wall thickness such as that claimed during Sasaki's molding method in order to produce an article which meets exclusive customer specifications.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 3, and 6-11 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A. Huson whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 7:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Monica A Huson  
Primary Examiner  
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